Amendments to the Claims:

This claim listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) A process for operating a membrane fuel cell stack with dry, unhumidified operating gases comprising:

a) providing a membrane fuel cell stack comprising a membrane electrode unit which comprises ~~Membrane electrode unit for membrane fuel cells operating with dry, unhumidified gases, comprising~~ an ion-conducting membrane, at least one anode electrode layer, at least one cathode electrode layer, at least one porous, water repellent gas diffusion layer mounted on the anode side and at least one porous, water repellent gas diffusion layer mounted on the cathode side,
wherein
- the total pore volume of the cathode gas diffusion layer is higher than the total pore volume of the anode gas diffusion layer ($V_{Cathode} > V_{Anode}$), and
- the amounts of water repellent agent in the anode and the cathode gas diffusion layers are in the range of 20 to 35% by weight (based on the total weight of the gas diffusion layer), and
- the amount of water repellent agent in the anode gas diffusion layer is identical or higher than the amount of water repellent agent in the cathode gas diffusion layer ($WRA_{Anode} \geq WRA_{Cathode}$) and,
[[-]] wherein the gas diffusion layers on the anode and/or the cathode side comprise a microlayer with a layer thickness between 10 and 20 microns; and,

b) providing or feeding dry, unhumidified gases to both the anode and cathode of the membrane electrode unit.

2. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 1, wherein the total pore volume of the gas diffusion layer on the cathode side ($V_{Cathode}$) is in the range from 1.0 to 2.5 ml/g and the total pore volume of the gas diffusion layer on the anode side (V_{Anode}) is in the range from 0.5 to 2.0 ml/g.

3. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 1, wherein the water repellent agent comprises a fluorinated polymer.

4. (canceled).

5. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 1, wherein the ion-conducting membrane comprises a proton-conducting polymer material.

6 – 10. (canceled).

11. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 5, wherein the proton-conducting polymer material comprises a tetrafluoro-ethylene/fluorovinyl ether copolymer.

12. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 11, wherein the tetrafluoro-ethylene/fluorovinyl ether copolymer has sulphonic groups.

13. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 1, wherein the electrode layers comprise a catalytically active, finely divided noble metal.

14. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 13, wherein the noble metal is platinum, palladium, ruthenium, gold or combinations thereof.

15. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 1, wherein the membrane electrode unit further comprises ~~comprising~~ a sealing material.

16. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 1 , wherein the membrane electrode unit further comprises ~~comprising~~ a reinforcing material for gas-tight sealing on installation in [[a]] the membrane fuel cell stack.

17. (canceled).

18. (canceled).

19. (currently amended) The process ~~Process~~ for operating a membrane fuel cell stack according to claim 1 [[18]], wherein the dry, unhumidified gases comprise hydrogen, reformate gas, oxygen or air.

20. (currently amended) The process ~~Membrane electrode unit~~ according to Claim 3 wherein the fluorinated polymer is selected from the group consisting of PTFE, PVDF, FEP and mixtures thereof.